REMARKS

This is a full and timely response to the final Office Action of March 21, 2008.

Reexamination, reconsideration, and allowance of the application and all presently pending claims

are respectfully requested.

Upon entry of this Second Response, claims 1-8 and 10-18 are pending in this application.

Claims 1-3, 6, 7, 11-13, and 16 are directly amended herein, and claim 18 is newly added. It is

believed that the foregoing amendments add no new matter to the present application.

Response to §112 Rejections

Claim 1 presently stands rejected under 35 U.S.C. §112, second paragraph, as allegedly

being indefinite for failing to particularly point out and distinctly claim the subject matter which

Applicants regard as the invention. Applicants submit that claim 1 has been amended such that

"said data path" recited at line 9 clearly refers to the "data path from said layer 3 potions to said

layer 2 portion." Applicants respectfully submit that claim 1 satisfies the requirements of 35

U.S.C. §112, second paragraph, and Applicants request that the rejection of claim 1 under 35

U.S.C. §112, second paragraph, be withdrawn.

Response to §103 Rejections

In order for a claim to be properly rejected under 35 U.S.C. §103, the combined teachings

of the prior art references must suggest all features of the claimed invention to one of ordinary

skill in the art. See, e.g., In Re Dow Chemical Co., 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed.

Cir. 1988), and In re Keller, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981). In addition,

"(t)he PTO has the burden under section 103 to establish a prima facie case of obviousness." In

re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). "On the issue of Obviousness,

the combined teachings of the prior art as a whole must be considered." *EWP Corp. v. Reliance Universal, Inc.*, 755 F.2d 898, 225 U.S.P.Q. 20, 25 (Fed. Cir. 1985). Furthermore, the Federal Circuit has stated that "(i)t is impermissible, however, to simply engage in hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps." *In re Gorman*, 933 F.2d 982, 987, 18 U.S.P.Q.2d 1885 (1991).

Claim 1

Claim 1 presently stands rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* (U.S. Patent No. 6,868,509) in view of *Jones* (U.S. Patent Application Publication No. 2004/0202105). Claim 1, as amended, reads as follows:

> 1. A **network router**, comprising:
> a layer 1 portion having a first communication interface and a second communication interface;
> a layer 2 portion;
> a layer 3 portion having a routing table specifying, for a particular destination, a data path from said layer 3 portion to said layer 2 portion, said layer 3 portion configured to provide a plurality of data packets destined for the particular destination and to route through said data path each of said data packets based on said routing table; and
> **switching logic configured to automatically initiate a layer 2 switch such that said layer 2 portion interfaces a plurality of said data packets with said second communication interface in lieu of said first communication interface, wherein said layer 2 switch is transparent to said layer 3 portion, wherein said layer 2 portion is configured to interface at least one of said data packets with said first communication interface prior to said layer 2 switch, wherein said first communication interface is configured to transmit said at least one data packet to a second router via a first protocol over a first data path through a first network, and wherein said second communication interface is configured to transmit said plurality of said data packets to said second router via a second protocol over a second data path through a second network.** (Emphasis added).

Applicants respectfully assert that the alleged combination of *Gale* and *Jones* fails to suggest at least the features of claim 1 highlighted hereinabove. Thus, the 35 U.S.C. §103 rejection of claim 1 should be withdrawn.

In this regard, it is candidly admitted in the Office Action that *Gale* fails to teach a layer 2 switch that is transparent to a layer 3 portion of a network router. However, it is alleged in the Office Action that *Jones* suggests a layer 2 switch that is transparent to layer 3 at Paragraphs [0031] – [0033]. Applicants respectfully disagree. In this regard, the cited sections of *Jones*, for the most part, describe switching from one data path to another data path without describing with specificity the manner such switch is made except for the brief discussion at Paragraph [0031], which reads as follows:

> "The switching operation 206 may (involve) modifying network packets from the affected node such that a new path is traversed. Alternatively, the switching operation 206 may require modification of routing tables within the network environment. It is further contemplated that presumptively switching to the redundant path includes presumptively switching to a redundant controller at the network resource."

Modifying a routing table within a device is clearly not transparent to a layer 3 portion of the device, and the "modification of routing tables" suggested by *Jones*, therefore, cannot constitute the "layer 2 switch" recited by claim 1. Thus, the only issue is whether the teaching that "(t)he switching operation 206 may (involve) modifying network packets from the affected node such that a new path is traversed" is sufficient for suggesting the "layer 2 switch" recited by claim 1. For at least the reasons set forth below, Applicants respectfully assert that such a teaching is insufficient for suggesting the limitations of claim 1 missing from *Gale*.

First of all, there is nothing in *Jones* to suggest that "modifying network packets" should occur in a "network router." In this regard, updating a routing table in a "network router" in order to change data paths is well-known. However, not all network devices have a routing table, and one of ordinary skill in the art would readily understand that the "modifying network packets" described at Paragraph [0031] of *Jones* would be useful in devices that do not have a routing table. The "alternative" suggested by *Jones* appears to be an alternative approach for devices that do have routing tables, and *Jones* provides no reason or motivation whatsoever for "modifying network

packets" rather than making a routing table change in a device that employs a routing table. When the teachings of *Jones* are properly read as a whole without the benefit of Applicants' disclosure, it becomes apparent that *Jones* fails to suggest "modifying network packets" specifically within *a network router* to effectuate a data path change.

In fact, for devices that have routing tables, *Jones* specifically teaches that the routing table can be modified in order to effectuate the desired data path change, thereby teaching away from the claimed invention. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by applicant." *In re Gurley*, 2 F.3d 551, 31 U.S.P.Q.2d 1130, 1131 (Fed. Cir. 1994). *Gale* further leads a person of ordinary skill in the art away from the claimed invention by specifically teaching modification of routing tables in order to effectuate a data path change. See column 8, lines 52-53. When the teachings of the cited art are properly considered as whole, it is apparent that one of ordinary skill in the art, upon reading such references without the benefit of Applicants' disclosure, would not be motivated to effectuate a data path change by performing a "layer 2 switch" within a "network router," and Applicants submit that the rejection of claim 1 is based on impermissible hindsight reconstruction of Applicants' invention using information gleaned from Applicants' disclosure. For at least the foregoing reasons, Applicants respectfully submit that the 35 U.S.C. §103 rejection of claim 1 is improper.

In addition, there is nothing in *Jones* to suggest that the "modifying network packets" includes modification of the packets in a way such that a *different protocol* is used to communicate the packets over a *different network* to the *same "second router"* relative to the packets communicated prior to an error condition. In fact, in Figure 1, it appears that the re-routed packets are communicated over the same network and presumably according to the same protocol. In addition, there is nothing in *Jones* to suggest that the packets are to be received by

the same "second router." Thus, for at least the foregoing reasons, the "modifying network packets" suggested by *Jones* cannot constitute the "layer 2 switch" recited by claim 1 in which the "layer 2 switch" results in the data packets being communicated over a different network and a different protocol, yet to the same "second router."

For at least the above reasons, Applicants respectfully assert that the alleged combination of *Gale* and *Jones* fails to suggest each feature of claim 1. Accordingly, the 35 U.S.C. §103 rejection of claim 1 should be withdrawn.

Claims 2-5, 17, and 18

Claims 4 and 17 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones*. In addition, claim 2 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones* further in view of *Simpson* (U.S. Patent No. 7,234,001), and claim 3 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones* and further in view of *Singh* (U.S. Patent Application Publication No. 2003/0088698). Also, claim 5 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones* and further in view of *Fredette* (U.S. Patent No. 6,987,727), and claim 18 has been newly added via the amendments set forth herein. Applicants submit that the pending dependent claims 2-5, 17, and 18 contain all features of their respective independent claim 1. Since claim 1 should be allowed, as argued hereinabove, pending dependent claims 2-5, 17, and 18 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 6

Claim 6 presently stands rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones*. Claim 6 reads as follows:

> 6. A network router, comprising:
> a layer 3 protocol stack configured to provide a plurality of data packets to be transmitted by said network router to a second router, the layer 3 protocol stack having a routing table specifying a data path for routing said plurality of data packets to said second router, the layer 3 protocol stack configured to insert, into each of said plurality of data packets, route information indicative of said data path based on said routing table;
> a first layer 2 protocol stack;
> a second layer 2 protocol stack;
> a plurality of layer 3 network interfaces configured to receive data packets from said layer 3 protocol stack, wherein said layer 3 protocol stack is configured to provide each of said plurality of data packets to one of said layer 3 network interfaces; and
> layer 2 switching logic configured to receive each of said plurality of data packets from said one layer 3 network interface, ***said layer 2 switching logic configured to provide at least one of said plurality of data packets to said first layer 2 protocol stack such that said at least one of said plurality of data packets is transmitted via a primary network and a first protocol said second router, said layer 2 switching logic configured to perform a layer 2 switch in response to a detection of an error condition such that said layer 2 switching logic provides, in response to said detection, at least one other of said plurality of data packets to said second layer 2 protocol stack such that said at least one other of said plurality of data packets is transmitted via a secondary network and a second protocol to said second router, wherein said layer 2 switch is transparent to said layer 3 protocol stack.*** (Emphasis added).

For at least reasons similar to those set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the alleged combination of *Gale* and *Jones* fails to suggest at least the features of claim 6 highlighted above. Thus, the 35 U.S.C. §103 rejection of claim 6 should be withdrawn.

Claims 7, 8, and 10

Claims 7 and 8 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones*. In addition, claim 10 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones* and further in view of *Simpson*. Applicants submit that the pending dependent claims 7, 8, and 10 contain all features of their respective independent claim 6. Since claim 6 should be allowed, as argued hereinabove, pending dependent claims 7, 8, and 10 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 11

Claim 11 presently stands rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones*. Claim 11 reads as follows:

> 11. A method for use in a network router, comprising the steps of:
> providing data packets from a layer 3 portion of said network router, said layer 3 portion including a routing table specifying route information for said data packets;
> inserting said route information into each of said data packets;
> ***interfacing a first plurality of said data packets with a first communication interface of a layer 1 portion of said network router;***
> ***communicating said first plurality of data packets from said first communication interface over a primary data path to a second router via a first protocol;***
> ***detecting an error condition associated with said primary data path;***
> ***automatically performing a layer 2 switch in response to said error condition;***
> ***interfacing, in response to said layer 2 switch, a second plurality of said data packets with a second communication interface of said layer 1 portion; and***
> ***communicating said second plurality of data packets from said second communication interface over a backup data path to said second router via a second protocol,***
> ***wherein said layer 2 switch is transparent to said layer 3 portion.***
> (Emphasis added).

For at least reasons similar to those set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the alleged combination of *Gale* and *Jones* fails to suggest at least the features of claim 11 highlighted above. Thus, the 35 U.S.C. §103 rejection of claim 11 should be withdrawn.

Claims 12-15

Claim 12 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones* and further in view of *Simpson*. In addition, claim 13 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones* and further in view of *Singh*, and claims 14 and 15 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones* and further in view of *Fredette*. Applicants submit that the pending dependent claims 12-15 contain all features of their respective independent claim 11. Since claim 11 should be allowed, as argued hereinabove, pending dependent claims 12-15 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 16

Claim 16 presently stands rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Gale* in view of *Jones*. Claim 16 reads as follows:

> 16. A method for use in a network router, comprising the steps of:
> using a layer 3 protocol stack within said network router to provide a plurality of data packets, said layer 3 protocol stack including a routing table specifying route information for said plurality of data packets;
> inserting said route information into each of said plurality of data packets;
> ***transmitting said data packets from a first layer 1 communication interface over a primary data path to a second router via a first protocol and from a second layer 1 communication interface over a backup data path to said second router via a second protocol;***
> ***transmitting each of said data packets to one of a plurality of layer 3 network interfaces within said network router;***
> ***detecting an error condition associated with said primary data path;***
> ***transmitting said data packets from said one layer 3 network interface to a plurality of layer 2 protocol stacks within said network router; and***
> ***controlling which of said layer 2 protocol stacks receives each of said data packets based on said detecting step without updating said layer 3 protocol stack based on said detecting step,***
> wherein each of said data packets received by a first one of said layer 2 protocol stacks is transmitted over said primary data path and each of said data packets received by a second one of said layer 2 protocol stacks is transmitted over said backup data path. (Emphasis added).

For at least reasons similar to those set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the alleged combination of *Gale* and *Jones* fails to suggest at least the features of claim 16 highlighted above. Thus, the 35 U.S.C. §103 rejection of claim 16 should be withdrawn.

CONCLUSION

Applicants respectfully request that all outstanding objections and rejections be withdrawn and that this application and all presently pending claims be allowed to issue. If the Examiner has any questions or comments regarding Applicants' response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,

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